

Listing of the Claims:

1. (Previously presented) A receiver comprising:
analog-to-digital circuitry for generating a digital representation of a signal at an input;
adjustable gain control circuitry for receiving a radio signal and outputting an amplified analog signal using a gain determined by a magnitude of the signal at an output of the analog-to-digital circuitry; and
digital channel filtering circuitry for filtering said digital representation; and
digital processing circuitry for processing the output of said digital representation.
2. (Original) The receiver of claim 1 wherein said analog-to-digital circuitry generates an output having a plurality of bit values and the gain applied by the adjustable gain control circuitry is determined responsive to one or more of the bit values.
3. (Original) The receiver of claim 2 wherein said gain is reduced by a first amount responsive to a most significant of said bit values indicating that the analog-to-digital converter has exceeded a first saturation threshold.
4. (Original) The receiver of claim 3 wherein said automatic gain control circuit applies said first gain reduction independent of said digital processing circuitry.
5. (Original) The receiver of claim 3 wherein said gain is reduced by a second amount responsive to a set of most significant bits of said bit values indicating that the analog-to-digital converter has exceeded a second saturation threshold.

6. (Original) The receiver of claim 2 wherein said gain is increased responsive to a set of most significant bits of said bit values indicating that the analog-to-digital converter is below a threshold.

7. (Previously presented) A method of receiving a signal in a receiver, comprising the steps of:

generating a digital representation of a signal at an output of a analog-to-digital converter after applying a gain to the signal;

adjusting the gain responsive to the magnitude of the digital representation of said output of said analog-to-digital converter

generating a filtered digital representation for a desired channel; and processing the filtered digital representation.

8. (Original) The method of claim 7 and wherein said adjusting step comprises the step of adjusting the gain responsive to one or more bit values of said digital representation.

9. (Original) The method of claim 8 wherein said adjusting step includes the step of adjusting the gain by a first predetermined amount responsive to the value of a most significant bit of said bit values.

10. (Original) The method of claim 9 wherein said adjusting step includes the step of adjusting the gain by a second predetermined amount responsive to a set of most significant bits of said bit values.

11. (Previously presented) The receiver of claim 1 wherein said output of the analog-to-digital circuitry is directly connected to an input of said adjustable gain control circuitry.

12. (Previously presented) The method of claim 8 wherein the magnitude

of the digital representation is received via a direct connection to said output of said analog-to-digital circuitry.

13. (Previously presented) A receiver comprising:
adjustable gain control circuitry for receiving a radio signal and outputting an amplified analog signal using a gain determined by a magnitude of a signal at an output of the analog-to-digital circuitry;
digital channel filtering circuitry for filtering said digital representation; and
digital processing circuitry for processing the output of said digital representation.

14. (Previously presented) The receiver of claim 13 wherein said adjustable gain control circuitry is coupled to receive an output signal from at least one low pass filter.

15. (Previously presented) The receiver of claim 14 wherein at least one input of said at least one low pass filter is coupled to an output of at least one mixer.

16. (Previously presented) The receiver of claim 15 wherein at least one input of said at least one mixer is coupled to an output of an amplifier.

17. (Previously presented) The receiver of claim 16 wherein an input of said amplifier is coupled to an output of a bandpass filter.

18. (Previously presented) The receiver of claim 14 wherein said at least one low pass filter comprises two low pass filters.

19. (Previously presented) The receiver of claim 13 wherein said adjustable gain control circuitry comprises two gain control circuits.

20. (Previously presented) The receiver of claim 13 wherein said output of

the analog-to-digital circuitry is directly connected to an input of said adjustable gain control circuitry.

21. (Previously presented) The receiver of claim 13 wherein said analog-to-digital circuitry comprises two analog-to-digital circuits, one of said analog-to-digital circuits having an output directly connected to an input of said adjustable gain control circuitry.